

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A mixer for a liquid chromatograph, the mixer comprising:

a connected body including a plurality of plate materials connected together, said plurality of plate materials including first, second, and third plate materials, each of said plate materials defining a first liquid supply hole through which a first liquid flows, a second liquid supply hole through which a second liquid flows, and a liquid take-out hole through which a mixture of the first and second liquids flows out of the connected body, wherein said first liquid supply holes are in fluid communication with one another, said second liquid supply holes are in fluid communication with one another, and said liquid take-out holes are in fluid communication with one another;

wherein said second plate material also defines a first flow passage that receives the first liquid from the said second plate material first liquid supply hole and a second flow passage that receives the second liquid from the second plate material second liquid supply hole;

wherein said third plate material defines a mixing portion that receives the first liquid from the second plate material first flow passage and receives the second

liquid from the second plate material second flow passage, whereby the first and second liquids mix with one another in said mixing portion and the mixture thereafter flows through the third plate material liquid take-out hole; and,

~~so as to form therein flow passages serving as a mixing portion, the connected body including at least two liquid supply holes for supplying liquids to the flow passages and a take out hole for taking out the liquids mixed together from the flow passages,~~

wherein the first, second, and third ~~two or more~~ plate materials each including a flow passage are superimposed on top of each other and wherein ~~two or more of~~ the flow passages are connected in parallel to each other.

2. (Currently Amended) A mixer for a liquid chromatograph according to claim 1, wherein the connected body comprises a plurality of sets of plate materials, each plate material set ~~having including said~~ first, second, and ~~three~~ third plate materials, ~~the first plate material having penetration holes for supply of the liquids and a penetration hole for taking out the mixed liquids, the second plate material having penetration holes for supply of the liquids, a penetration hole for taking out the mixed liquids, and a flow passage for mixing the liquids together, the third plate material having penetration holes for supply of the liquids, and a penetration hole for taking out the mixed liquids, and a flow passage for mixing and collecting the liquids together,~~ and wherein the plurality of sets are connected together in such a manner that the first liquid supply holes are in a first location so as to be in fluid communication with one another, the second liquid supply holes are in a second location so as to be in fluid communication with one another, and the liquid take-out holes are in a third location so as to be in fluid communication with one

~~another penetration holes for supply of the liquids and the penetration holes for taking out the mixed liquids of the respective sets are set at the same positions.~~

3. (New) A mixer for a liquid chromatograph, the mixer comprising:

a connected body including a plurality of plate materials, the connected body defining a first liquid supply hole, a second liquid supply hole, and a mixture take-out hole, wherein a first liquid is supplied through the first liquid supply hole, a second liquid is supplied through the second liquid supply hole, and a mixture of said first and second liquids flows out of the connected body via the mixture take out hole, and wherein the liquid supply holes and the take-out hole are formed through each of the plurality of plate materials;

first and second supply flow passages, formed in one of said plurality of plate materials, said first supply flow passage receiving the first liquid from the first liquid supply flow hole of said one of said plurality of plate materials while said second supply flow passage receives the second liquid from the first liquid supply flow hole of said one of said plurality of plate materials;

a mixing flow passage formed in an other of said plurality of plate materials, said mixing flow passage communicating with said first and second supply flow passages formed in said one of said plurality of plate materials so as to receive said first and second liquids therefrom, whereby said first and second liquids mix within said mixing flow passage and are communicated therefrom to said take-out holes of said other plate material and flows therethrough out of the connected body.

4. (New) The mixer for a liquid chromatograph according to claim 3, wherein the

first and second supply flow passages are slotted openings extending through the one plate material, and wherein the mixing flow passage is a closed-bottom groove formed in the other plate material, said mixing flow passage being in direct communication with the slotted openings of the first and second supply flow passages so as to receive said first and second fluids therefrom.

5. (New) The mixer for a liquid chromatograph according to claim 4, wherein the connected body further comprises a holder, said holder comprising:

a support part including a plate material mounting portion for mounting the plurality of plate materials; and

a connecting part including a support part mounting portion for mounting the support part, said connecting part defining first and second liquid input ports and a mixture output port, said first and second liquid input ports being matched in position with the first and second liquid supply holes, respectively, and said liquid output port is matched in position with the mixture take-out hole;

wherein the plate materials are received between the support part and the connecting part.

6. (New) The mixer for a liquid chromatograph according to claim 5, wherein the plurality of plate materials defines a set, and wherein the set is one of a plurality of sets connected in parallel to one another and received within said holder such that the first and second liquids can be mixed with high efficiency.

7. (New) A mixer for a liquid chromatograph, the mixer comprises a connected

body including:

a first plate material,

a second plate material having a first supply flow passage for flowing in a first liquid and a second supply flow passage for flowing in a second liquid,

a third plate material having a mixing flow passage for collecting and mixing the first and second fluids from the first and second supply flow passages,

wherein each of the plate materials has first and second supply penetration holes and a take-out penetration hole extending therethrough, wherein the first supply penetration hole supplies the first liquid to the first supply flow passage, the second supply penetration hole supplies the second liquid to the second supply flow passage, and the take-out penetration hole takes out a mixture of the first and second liquids from the mixing flow passage,

wherein the plurality of plate materials are connected together in such a manner that the first supply penetration holes are coaxial with one another, said second supply penetration holes are coaxial with one another, and the take-out penetration holes are coaxial with one another.

8. (New) The mixer for a liquid chromatograph according to claim 7, wherein the first and second supply flow passages are slotted openings extending through the second plate material, and wherein the mixing flow passage is a closed-bottomed groove formed in the third plate material, said mixing flow passage being in direct communication with the slotted openings of the first and second supply flow passages so as to receive said first and second fluids therefrom.

9. (New) The mixer for a liquid chromatograph according to claim 8, wherein the connected body further comprises a holder for holding the plate materials, the holder comprising:

a support part including a plate material mounting portion for mounting the plurality of plate materials; and

a connecting part including a support part mounting portion for mounting the support part, said connecting part defining first and second liquid input ports and a mixture output port, said first and second liquid input ports being coaxial with the first and second supply penetration holes, respectively, and said liquid output port is coaxial with the take-out penetration hole;

wherein the plate materials are received between the support part and the connecting part.

10. (New) The mixer for a liquid chromatograph according to claim 7, wherein the plurality of plate materials defines a set, and wherein the set is one of a plurality of sets fluidly connected in parallel, so that liquids can be mixed with high efficiency.